



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,715	04/06/2001	Christine W. Jarvis	CXU-350	5602

22827 7590 06/19/2002

DORITY & MANNING, P.A.  
POST OFFICE BOX 1449  
GREENVILLE, SC 29602-1449

EXAMINER
----------

RHEE, JANE J

ART UNIT	PAPER NUMBER
----------	--------------

1772

DATE MAILED: 06/19/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/828,715

Applicant(s)

JARVIS ET AL.

Examiner

Jane J Rhee

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. The term "3 dimensional topography" in claims 19,20,26,27,32,33 is a relative term which renders the claim indefinite. The term "3 dimensional topography" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 11-14, 19-21, 29-33, 35-36, 38-40 are rejected under 35 U.S.C. 102(b) as being unpatentable by Adiletta (4865903).

Adiletta discloses a method of forming a seam between substrates comprising: providing a first substrate having an upper surface and a lower surface (figure 2 number 21a), the upper and the lower surfaces of the first substrate defining at least one edge (figure 2 number 21a) ; providing a second substrate having an upper surface and a

Art Unit: 1772

lower surfaces of the second substrate defining at least one edge (figure 2 number 21b); overlapping the edge of the first substrate with the edge of the second substrate (figure 2 number 25); positioning a first tape portion adjacent to the first substrate such that the first tape portion is placed with the upper and the lower surfaces of the first substrate (figure 2 number 25), the first tape portion comprising a thermoplastic material that is melt-flowable when subjected to a certain amount of heat and pressure (col. 8 line 66-68 and col. 9 line 1); positioning a second tape portion adjacent to the second substrate such that the second tape portion (figure 2 number 23 and 21b) comprising a thermoplastic material that is melt-flowable when subjected to a certain amount of heat and pressure (col. 8 line 66-68 and col. 9 line 1); forming an adhesive bond and a physical bond between the first tape portion and the first substrate and between the second tape portion the second substrate (figure 2). Adiletta discloses that the first tape portion and the second tape portion are attached together (figure 2 number 23). Adiletta discloses that the first tape portion and the second tape portion are continuous (figure 2 number 23). Adiletta discloses that the first tape portion and the second tape portion are unattached (figure 2 numbers 23 and 24). Adiletta discloses that the method further comprises heating the first and second tape portion to a predetermined temperature (col. 8 line 6). Adiletta discloses that the first and second predetermined temperature is between about 10°C below the thermal melting temperature of the thermoplastic material to about 50°C above the thermal melting temperature of the thermoplastic material (col. 8 line 6 and col. 4 line 9). Adiletta discloses that the first and second portion of the tape is subjected to pressure (col. 8

Art Unit: 1772

line 7). Adiletta discloses that the first tape portion to simultaneous heat and pressure and subjecting the second tape portion to simultaneous heat and pressure (col. 8 lines 4-7). Adiletta discloses that the first substrate and second substrate are fabrics (col. 8 lines 40-43 and col. 2 line 65). Adiletta discloses multiple layers in the tape portions (col. 5 lines 50-51 and col. 6 line 29) and that the layers contain thermoplastic material having a first thermal melting temperature and another one of the layers contain a thermoplastic material having a second thermal melting temperature, the second thermal melting temperature being greater than the first thermal melting temperature (col. 5 lines 51-53). Adiletta discloses a three dimensional topography on at least one of the surfaces of the first or second substrate wherein the edge of one of the surfaces is nonlinear (col. 4 line 22).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adiletta in view of Hauer et al. (5626947).

Adiletta discloses the method of forming a seam between two substrates above. Adiletta fail to disclose that the pressure is between about 40 pounds per square inch to about 120 pounds per square inch. Hauer et al. teaches that the pressure is 40 pounds

per square inch (col. 3 line 42) for the purpose of having an improved balance of chemical resistance and physical properties (col. 3 lines 28-29).

Therefore, it would have been obvious to one of ordinary skill in the art to have provided Adiletta with the pressure of 40 pounds per square inch in order to have an improved balance of chemical resistance and physical properties (col. 3 lines 28-29) as taught by Hauer et al.

4. Claims 15-18 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adiletta in view of Arakawa et al. (5591521).

Adiletta discloses the method of forming a seam between two substrates above. Adiletta fail to disclose that the method comprises a folding of the tape portions into a certain shape such as a Z-shaped configuration. Adiletta fail to disclose that the tape portions are folded prior to being placed adjacent to the first and second substrate. Adiletta fail to disclose that the tape portions are folded after being placed adjacent to the first substrate and the second substrate. Arakawa et al. teaches that the method comprises a folding of the tape portions into a certain shape such as a Z-shaped configuration (figure 1) and that the tape portions are folded prior to being placed adjacent to the first and second substrate (col. 5 lines 24-29) or that the tape portions are folded after being placed adjacent to the first substrate and the second substrate (col. 5 lines 53-54) for the purpose of obtaining a pressure sensitive adhesive wherein rewinding the tape is possible and adhesion is not deteriorated by heat and with passage of time (col. 1 lines 42, 48-49).

Therefore, it would have been obvious to one of ordinary skill in the art to have provided Adiletta with a folding of the tape portions into a certain shape such as a Z-shaped configuration and that the tape portions are folded prior to being placed adjacent to the first and second substrate or that the tape portions are folded after being placed adjacent to the first substrate and the second substrate in order to obtain a pressure sensitive adhesive wherein rewinding the tape is possible and adhesion is not deteriorated by heat and with passage of time (col. 1 lines 42, 48-49) as taught by Arakawa et al.

5. Claims 22-28 rejected under 35 U.S.C. 103(a) as being unpatentable over Adiletta in view of Arakawa et al. (5591521).

Adiletta discloses a method of forming a seam between substrates comprising: providing a first substrate having an upper surface and a lower surface (figure 2 number 21a), the upper and the lower surfaces of the first substrate defining at least one edge (figure 2 number 21a) ; providing a second substrate having an upper surface and a lower surfaces of the second substrate defining at least one edge (figure 2 number 21b); overlapping the edge of the first substrate with the edge of the second substrate (figure 2 number 25); positioning a first tape portion adjacent to the first substrate such that the first tape portion is placed with the upper and the lower surfaces of the first substrate (figure 2 number 25), the first tape portion comprising a thermoplastic material that is melt-flowable when subjected to a certain amount of heat and pressure (col. 8 line 66-68 and col. 9 line 1); positioning a second tape portion adjacent to the second substrate such that the second tape portion (figure 2 number 23

Art Unit: 1772

and 21b) comprising a thermoplastic material that is melt-flowable when subjected to a certain amount of heat and pressure (col. 8 line 66-68 and col. 9 line 1); forming an adhesive bond and a physical bond between the first tape portion and the first substrate and between the second tape portion the second substrate (figure 2). Adiletta discloses that the first tape portion to simultaneous heat and pressure and subjecting the second tape portion to simultaneous heat and pressure (col. 8 lines 4-7). Adiletta discloses that the first substrate and second substrate are fabrics (col. 8 lines 40-43 and col. 2 line 65). Adiletta discloses a three dimensional topography on at least one of the surfaces of the first or second substrate wherein the edge of one of the surfaces is nonlinear (col. 4 line 22).

Adiletta fail to disclose that the method comprises a folding of the tape portions into a Z-shaped configuration. Adiletta fail to disclose that the tape portions are folded prior to being placed adjacent to the first and second substrate. Adiletta fail to disclose that the tape portions are folded after being placed adjacent to the first substrate and the second substrate.

Arakawa et al. teaches that the method comprises a folding of the tape portions into a Z-shaped configuration (figure 1) and that the tape portions are folded prior to being placed adjacent to the first and second substrate (col. 5 lines 24-29) or that the tape portions are folded after being placed adjacent to the first substrate and the second substrate (col. 5 lines 53-54) for the purpose of obtaining a pressure sensitive adhesive wherein rewinding the tape is possible and adhesion is not deteriorated by heat and with passage of time (col. 1 lines 42, 48-49).



Therefore, it would have been obvious to one of ordinary skill in the art to have provided Adiletta with a folding of the tape portions into a Z-shaped configuration and that the tape portions are folded prior to being placed adjacent to the first and second substrate or that the tape portions are folded after being placed adjacent to the first substrate and the second substrate in order to obtain a pressure sensitive adhesive wherein rewinding the tape is possible and adhesion is not deteriorated by heat and with passage of time (col. 1 lines 42, 48-49) as taught by Arakawa et al.

6. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adiletta in view of Johnson et al. (US 2002/0011308).

Adiletta discloses the method of forming a seam between two substrates above. Adiletta fail to disclose that at least one of the tape portions comprises polyurethane. Johnson teaches that at least one of the tape portions comprise polyurethane (pg 9 col. 1 Line 60) for the purpose of providing smooth surfaces for painting or finished surface after the melt flowable sheet has been bonded to the surface (pg 9 col. 1 lines 62-64).

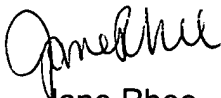
Therefore, it would have been obvious to one of ordinary skill in the art to have provided Adiletta with at least one of the tape portions comprise polyurethane in order to provide smooth surfaces for painting or finished surface after the melt flowable sheet has been bonded to the surface (pg 9 col. 1 lines 62-64) as taught by Johnson et al.


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane J Rhee whose telephone number is 703-605-4959. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5408 for regular communications and 703-301-9999 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

  
Jane Rhee  
May 29, 2002

  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772 5/31/02